

The Learning Agents!



“Learning that flows across subjects so they all link together”

The ViTaL Development & Research Programme

Report No. 4



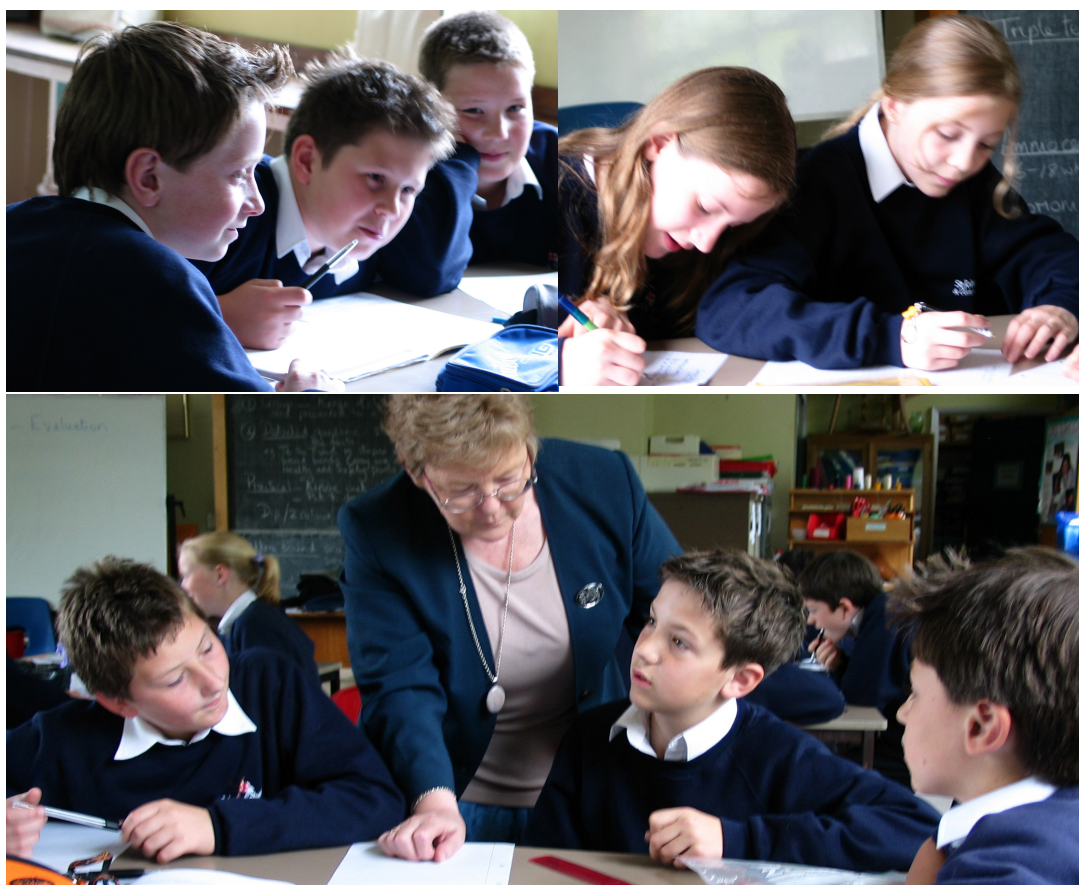
Contents	Page
Acknowledgements	3
Introduction	4
Methodology	4
Selection of Evidence	7
Findings and Evidence	
Research Question 1	8
Research Question 2	10
Research Question 3	11
Research Question 4	12
Research Question 5	13
Research Question 6	14
Conclusions	22
Appendices:	(on attached disk):
Appendix 1: Examples of Student Support Materials	
Appendix 2: Collated responses to student questionnaire, March 2006	
Appendix 3: Schedule of questions used for focus groups and semi-structured interviews	
Appendix 4: Graphical analysis of responses to student questionnaire	
Appendix 5: Report from the Data Analyst: July 2006 (43 pages)	

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21st May 2007

The Learning Agents!

What part do the language, concepts, principles, assessment and practice of learning power play in a large English secondary school in which the Key Stage 3 curriculum has been radically re-fashioned to shift the learner's role from that of 'receptor' to that of active 'agent' and to counter-balance emphasis on knowledge, skills and understanding with a primary focus on the process of learning itself?

This is the Report of an ELLI Research and Development Project undertaken in partnership with St John's School and Community College, Marlborough between June 2005 and October 2006



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1 Introduction

As this project was being planned in 2005, St John's was already one of the leading exponents of the Opening Minds Curriculum, working in partnership with the RSA. It was also embarking on a project focusing on personalised learning and other variables known to be important to a learner centred culture, such as quality of relationships and emotional literacy.

The 'alternative curriculum', which had been running at KS3 for 4 years, was based on the five competencies of:

- learning to learn
- citizenship
- relating to people
- managing situations
- managing information

This work had enabled the school to advance its practice in several ways in line with the principles of Effective Lifelong Learning and the ELLI project. It had:

- developed a competencies-based approach to curriculum design, objective-setting and assessment for learning
- refined and practised its philosophy of developing students' capacity to learn how to learn and manage their own learning
- explored new ways of sequencing and presenting the content of the KS3 curriculum to respond to individual needs and interests
- sought to improve continuity and progression from KS2 to KS3, through thematic integration of curriculum content, in collaboration with Primary feeder schools

St Johns had also become a partner in a planned RSA *Personalised Learning: Responsibility, Diversity and Assessment* project: a series of closed working seminars, followed up by a piece of empirical research leading towards an RSA publication. This project was to be chaired by the Director of the ELLI Research Programme and set out to investigate radical approaches to curriculum design and assessment based on personalised, context-driven enquiry projects.

These developments enabled the school to offer a uniquely appropriate context for the advancement of the ELLI research agenda.

2 Methodology

The project's broad aims, therefore, were to:

- explore the ways in which the dynamic assessment of learning power can assist and illuminate teacher- self- and peer-assessment the context of a competencies-based curriculum
- investigate how the dynamic assessment of learning power relates to policy and practice in:
 - personalising learning and learning pathways
 - primary-Secondary transfer, continuity and progression

- differentiating the curriculum to cater for all individual needs
- developing confidence, responsibility and independence
- explore how ELLI can be used to enhance and monitor progression of individuals through independent learning pathways
- investigate the strategic potential of ELLI as a core component of a Personalised Learning curriculum.

These were formulated into a set of six **research questions (RQs)**, which informed the methodology, data collection and analysis:

1. How does the use of the ELLI Learning Power assessment tool contribute to learners' understanding of themselves and their progression in a competencies-based curriculum?
2. How do ELLI Learning Power concepts affect teacher-, self- and peer-assessment practices in this context?
3. How do ELLI Learning Profiles and the Seven Dimensions of Learning Power inform and relate to:
 - i. *choice and decision-making in personalised learning?*
 - ii. *differentiation of objectives, tasks, support and assessment?*
 - iii. *management of progression and continuity between stages and phases of education, particularly from KS2 to KS3 and from KS4 to KS5?*
 - iv. *development and assessment of confidence, responsibility and independence?*
4. How does ELLI inform or affect teachers' and school managers' strategic decisions in planning and delivering a competencies-based, personalised curriculum?
5. What part can the dynamic assessment of learning power play in a radical shift of emphasis in curriculum design and delivery, in which
 - i. *the position of the student changes from that of a receptor to that of an active agent?*
 - ii. *an emphasis on knowledge, skills and understanding is counter-balanced by a primary focus on the process of learning itself?*
6. How do learning power profiles in these contexts compare with those for similar populations in more conventional curriculum contexts?

The research was designed as a collaborative action enquiry led by a core group of teaching staff, 'ELLI Champions', supported and co-ordinated by a senior teacher. It was adapted in response to early developments and the loss of a partner primary Head Teacher to another post and became focussed on the Year 7 Cohort. An experienced ELLI practitioner/researcher acted as external project manager, trained the champions and worked with the teams of staff through the course of the project, adjusting the design in the light of interim findings and assisting with further training, data collection and analysis.

The ELLI learning power ideas and assessment principles were first introduced to a core group of school leaders in a morning seminar in the Spring of 2005. In June, ten staff were trained as 'Champions' in their use and inducted into the methods required, which included: managing and preparing students for ELLI assessments; interpreting ELLI profiles and supporting students in interpreting

their own; devising and implementing interventions to support their students in developing their learning power selectively in response to their profiles; and gathering and recording of narrative and qualitative evidence.

The ELLI learning profiles were first administered to the Year 7 cohort in October and November of 2005.

The School Project Leader, Kathy Pollard, supplemented the Champions' training, gave briefings to other staff and produced materials to support the Champions and students (see Appendix 1). These materials included: self-assessment tools using concept-lines, a mapping document to show relationships of the Seven Dimensions with the core competencies of the Opening Minds Curriculum; laminated bookmarks showing personal learning strategies written by the ELLI R&D Team; reference pages in students' personal planners. Student support materials were distributed and explained through the tutorial programme.

Although the Champions were able to use the strategies and ideas in their teaching, the emphasis was on using the tutorial system to teach students about the Seven Dimensions, with interventions designed to give them the capacity and responsibility for developing their learning power: tutors explaining the ideas, discussing with students the interpretation of their individual profiles, encouraging them to reflect, orally and in writing and discuss and decide on their own strategies for developing their learning dispositions. There was little systematic take-up of the ELLI concepts in subject areas.

A key intervention was the introduction and resourcing of a staff-based mentoring system which involved all the students having regular, extended conversations with an adult trained in the ELLI concepts. These would happen on average every five-to-six weeks through the year, taking around 15 minutes each time and providing an ideal context both for referring to and developing the diagnostic application of the ELLI profile to each student, supporting him or her in devising or choosing strategies for building strengths in identified learning power dimensions.

The Year 7 cohort completed their post-intervention ELLI Profiles in June and July 2006.

Qualitative and narrative evidence was collected in the following ways:

- During a first visit in December 2005, comments were recorded verbatim from:
 - the school project leader (Kathy Pollard)
 - seven tutors, one on his own and the rest in pairs
 - two focus groups, with pairs of students representing each of five Year 7 Tutor Groups, 2 in one, 3 in the other
- In March 2006, the school project leader collated and forwarded responses to a questionnaire administered by her to Year 7 students working in pairs or threes, with no teacher support or intervention (see Appendix 2)

- During a second visit in July 2006, comments were recorded verbatim from:
 - two focus groups each containing seven Year 7 students who had completed their second ELLI profiles
 - four tutors plus the school project leader, from semi-structured interviews (see Appendix 3), following a report to them of the results of the data analysis

Quantitative data was:

- generated by administering the ELLI-online questionnaire to the cohort of 199 Year 7 Students for the first time in November 2005 and for the second time in June/July 2006, post-interventions;
- analysed and reported on by a member of the ELLI Research Team using SPSS analytical software at the University of Bristol.

3 Selection of evidence

3.1. Summary of evidence base:

3.1.1 Qualitative and narrative data (RQ's 1-5):

- Students involved in focus groups: 24 (10 in December 2005, 14 in July 2006)
- Tutors involved in focus groups and semi-structured interviews: 7
- Student written feedback in response to questionnaire March 2006
- Tutors interviewed face-to-face: 5
- Leaders/managers interviewed face-to-face or by telephone: 1
- Written evidence and reflections submitted by leaders: 1

3.1.2 Quantitative data (RQ 6)

Analysis of the ELLI Profile data for the entire cohort of 199 Year 7 students, including:

- Whole year group means on Seven Dimensions, pre- and post-interventions;
- Tutor Group means and significant variations, pre-interventions
- Pre-post differences reaching statistical significance in the whole cohort
- Significant or near significant variations between genders in pre- and post-intervention differences.
- Significant variations between tutor groups in pre- and post-intervention differences.

3.2 Selection criteria for evidence in support of findings

The findings below were arrived at by the researcher immersing himself in the qualitative, quantitative and narrative data collected through the above process, identifying emerging key themes in relation to each research question and verifying these by matching them with available evidence from the documentation which met the following criteria:

- For qualitative evidence:
 - Being freely offered, orally or in writing, in response to open questions, without leading or prompting
 - Either being reported as a personal example of a general observation agreed with by a clear (stated) majority of other respondents or being supported, in its representation of the finding in question, by at least two other independent written responses

- Relevance to the research questions
- Where relevant, being supported by quantitative data
- For quantitative data (from online surveys of both Stages):
 - being statistically significant or (where stated) at a level approaching statistical significance
 - where relevant, being supported by qualitative and narrative evidence that met the above criteria

4 Findings and evidence

4.1 (RQ1) *How does the use of the ELLI Learning Power assessment tool contribute to learners' understanding of themselves and their progression in a competencies-based curriculum?*

4.1.1 Many of the students reported that working with their ELLI profiles had helped them to know how to make and monitor improvements in their learning.

Comments included:

- *I used to depend on my friend. Now I don't sit with her. My Learning Relationships score made me decide to work more on my own (Dec 7U/L/B)*
- *It helped me to try and improve my Resilience, to see the point (Dec 7U/L/B)*
- *(reacting to fellow student's suggestion that we should 'take it to other schools'): it would help them get higher marks in Year 6! (Dec 7U/L/B)*
- *I really enjoyed it (the questionnaire) – I am more aware of what I could do better as a learner because I do things on my own a lot (Dec 7U/L/B)*
- *It was really clever how the questions sorted (me) out (Dec 7R/E)*
- *It's good on Creativity; in Sports Day, the hurdles race, I thought of a different technique... It could be anything, not just hurdling! (July Group 1)*
- *The shape (profile)! I liked the shape! I could work on the shape! (July Group 2)*
- *The 'Star Profile' was easy to understand: you could see how you'd changed from the first one to the second one (July Group 2)*
- *My first (profile) was not so good: felt bad! The second one is much better: feels good! (July Group 2)*
- *In the first one, some (Dimensions) went 'in'; in the second, some now go 'out' (July Group 2)*
- *You look back at it. I wasn't very good at Creativity so I got into a group and made things up (July Group 2)*
- *I wouldn't really have known my good bits and bad bits but once I'd done the questionnaire... (July group 2)*
- *My first (profile) was quite small, not very good, so I got a couple of tasks – I think for Critical Curiosity and Creativity...I went back and talked to my tutor in Mentoring...gave me some targets*
- *I wasn't very good at planning. I've got better at it. It's (ELLI) helped me to understand my work. Now, if I didn't plan, it would just go wrong. (July Group 2)*
- *In the questionnaire administered by the school in March 2006, 64% of the sample said that their ELLI profiles agreed with their own impressions, 27% said they agreed, but with some differences (see Appendix 4)*

- *Strategic awareness helps us figure out what resources we need (group feedback - Appendix 2)*
- *I used to give up but now I will keep on trying (a disaffected boy student - see Appendix 2)*
- *I now try to plan my time and create timetables but they don't always work (see Appendix 2)*
- *In music I found it really hard so I used my resilience to stick at it (see Appendix 2)*
- *It helps you realise your weaknesses and improve (see Appendix 2)*

4.1.2 Some students commented in particular on how working with ELLI had helped them to make connections in their learning, between different learning dimensions, across subjects, or between school and home.

Comments included:

- *It's morphed a bit – when you're doing ICT, a writing task (linking with) History – a famous writer – it really helps to link things together like English and History (July Group 1)*
- *I was doing an English project and I got most of my ideas from my Science book and a Science website (July Group 1)*
- *It's good that all the Seven Dimensions link together in some way (July Group 2)*
- *(It helps with) things out of school as well (July Group 2)*
- *You can use the skills you learn out of school... make links (July Group 2)*
- *The Seven Dimensions are helpful because they flow across subjects and they all link together (July Group 2)*
- *I'm much better at organisation skills, homework and planning time at the stables (see Appendix 2)*
- *I find I now relate to other things I know (see Appendix 2)*
- *I linked history and science by meaning making (see Appendix 2)*
- *In a questionnaire administered by the school, 76% of respondents said that they had found the ELLI profiles and dimensions useful out of school, 15% specifying with homework and 11% using them with parents (see Appendix 4)*
- *It gives you life skills, helps connect lessons together (see Appendix 2).*

4.1.3 Some students said or implied strongly that working with ELLI had made them reflect on their relationships and their own and each others' behaviour.

Comments included:

- *Everybody's changed quite a lot (July Group 1)*
- *It's not that people have changed, it's their way of learning: for instance, at the start of the year one person put their hand up, now everyone does (July Group 1)*
- *It doesn't change behaviour; there are still naughty people (July Group 1)*
- *It teaches you to block out bad behaviour – withdraw attention from it. That should reduce it! (July Group 1)*
- *When I did ELLI-online, I found I'd got worse at Resilience. It might be true! (July Group 1)*
- *I always change my mind half-way through (July Group 1)*
- *I would never be able to do that (plan work) – it's just me! (July Group 1)*

- *I get to the point when I've collected as many good ideas as I'm going to get (July Group 1)*
- *Do we get on better? Some, Yes! Some, a little bit! One shy person... resilience built up... made more friends (July Group 1)*
- *Most of the group said these changes were 'down to ELLI'; others said they were 'aided by ELLI': (ELLI) makes you see what's going on! (July Group 1)*
- *You can talk about it to your friends...it helps you to have more to talk about (July Group 2)*
- *In science I got stuck on phases of the moon so I asked friends and two of my teachers to help (see Appendix 2)*

4.2 (RQ2) How do ELLI Learning Power concepts affect teacher-, self- and peer-assessment practices in this context?

4.2.1 Tutors reported that the ELLI Dimensions, especially represented as 'concept-lines', were adapted (by them) and integrated by students into their self- and peer-assessment practices, helping them to demonstrate reflective self-awareness, (though one group 'struggled with them' at first).

Comments included:

- *The concept-line chart (of the Seven Dimensions) was changed around so it flowed from left-to-right (Project leader Dec 2005)*
- *The group found the opposite poles more difficult to understand (Tutor Dec 2005)*
- *They generally see the truth in their profiles – broadly agreed – 'flat areas turned out not to be useful... Some weaknesses and strengths were very well recognised (Tutor Dec 2005).*
- *Two very bright student, really into self- and peer-assessment, talking about each others' strengths in the Dimensions...really liked the animals (Tutor Dec 2005)*
- *(A remark about ELLI) was prompted by a girl saying, 'Beth is strong at Critical Curiosity' (Tutor Dec 2005)*
- *I thought it might be a bit 'dry'... there's so much self-assessment and process-orientation, with the 5 competencies, but it turned out good! (Tutor Dec 2005)*
- *They struggled (with the yellow concept lines sheet) ...no one wanted to be on the left! They assessed themselves wishfully; some a lot! (Tutor Dec 2005)*
- *We started by introducing the 7 Dimensions ... they 'guestimated' themselves on concept lines with a friend. Then they did the profiles (Project Leader July 2006)*
- *We only got so far in discussion; what worked was activities – posters, quizzes... they understood (the concepts) better when linked with their own experience (Tutor July 2006)*
- *The second time they did the questionnaire was probably more accurate – and so their profiles might shrink! The first time was not as meaningful – not explained... logistical problems...not prepared properly...they have so much self-evaluation anyway! (Tutor July 2006)*
- *Those who go 'down' (in their scores) may have become more self-aware, more self-critical (Tutor July 2006)*
- *They had done self-assessment on the yellow sheets...there was a high correlation with the 1st profile. They needed to refer to the animals to remember the 7 Dimensions (Tutor July 2006)*

4.3 (RQ3) How do ELLI Learning Profiles and the Seven Dimensions of Learning Power inform and relate to:

- i. *choice and decision-making in personalised learning?*
- ii. *differentiation of objectives, tasks, support and assessment?*
- iii. *management of progression and continuity between stages and phases of education, particularly from KS2 to KS3 and from KS4 to KS5? (Evidence was not elicited to answer this question in full)*
- iv. *development and assessment of confidence, responsibility and independence? (See also RQ 5 below)*

4.3.1 Almost all the tutors placed a high value on the mentoring conversations as a context for guidance and target-setting using the ELLI profiles to inform and differentiate their advice, though their success depended upon the promptness and enthusiasm with which such conversations were followed through and sustained.

Comments included:

- *In mentoring, we came up with targets – in school and out of school. E.g., Resilience: talk with parents for five minutes at the end of the day about ‘What I was stuck with’ (Tutor Dec 2005)*
- *Mentoring is key! (Tutor July 2006)*
- *Mentoring is crucial! (Tutor July 2006)*
- *All but three (students) increased in the Dimensions they focussed on in mentoring (Tutor July 2006)*
- *I used ELLI in Mentoring – it informed it in a more general way. It was useful – extremely – but I didn’t set ‘hard targets’ related to ELLI (Tutor July 2006)*
- *Releasing the feedback (profiles) through mentoring could be a drawback – there was a longer delay for some; but it was good to use in mentoring*
- *It was good to set targets together; they are more likely to see the point and relevance (Tutor July 2006)*
- *In the second round of mentoring I asked ‘Have you been thinking about ELLI?’ - ‘No!’ - I hadn’t made it clear that it is on-going and relates to everything! I got them to get different teachers to initial their targets. The more enthusiastic I got about it, the more enthusiastic they got. I started tentative, then got really enthusiastic! (Tutor July 2006)*
- *If I didn’t keep this alive, it would die. Sustainability is a key idea. (Tutor July 2006)*

4.3.2 Especially in the context of the mentoring conversations, students appeared to find their ELLI profiles particularly helpful in prompting choices and focussing their target-setting.

Comments included:

- *It makes me really want to improve! (Dec 2005 Group 2 - boy)*
- *Measuring it doesn’t build it. It’s what you do about it! (...a girl replies!)*
- *It helps you focus on what you need to improve (July Group 1)*
- *It helps you set targets – it’s a step-by-step guide, because it’s hard to achieve everything (July Group 1)*

- *It spaces out your targets (July Group 1)*
- *ELLI helps you to concentrate and focus on what you are doing (July Group 1)*
- *If you have one bad thing (Dimension) ... that's the thing you could choose ... make targets, get better at it (July Group2)*
- *It's helpful! I wasn't very organised ... went to mentoring ... (talked about) things like packing my bag the night before (July Group 2)*
- *We discuss our strengths and weaknesses and work out how to improve. (see Appendix 2)*
- *Yes it helped (see Appendix 2)*
- *Used it to assess ourselves and evaluate targets (see Appendix 2)*
- *Learned how we can perform better for the next session. (see Appendix 2)*
- *It's helped us make new targets to help us improve our standard of work (see Appendix 2)*
- *The dimensions help with creation of new targets based on our own profile shapes. (see Appendix 2)*
- *(My mentor) explained the profiles which was very useful (see Appendix 2)*
- *They (mentoring sessions) were the starting point for talking about our profiles. (see Appendix 2)*
- *(We) talked about it with mentors and (had) written targets to improve our weaker points. (see Appendix 2)*
- *Used strategic awareness to talk about our learning (see Appendix 2)*
- *Showed us what we needed to improve on (see Appendix 2)*
- *Useful and helpful with our work and education (see Appendix 2)*
- *Helped us understand the profile and final picture (see Appendix 2)*
- *One-to-one talks made the intentions clearer (see Appendix 2)*
- *88% of students reported that they had discussed their ELLI profiles or Dimensions in mentoring and found it helpful (see Appendix 4)*

4.4 (RQ4) How does ELLI inform or affect teachers' and school managers' strategic decisions in planning and delivering a competencies-based, personalised curriculum?

4.4.1 Some significant school-wide and classroom teaching and leadership strategies were inspired or prompted by the introduction of ELLI into the existing 'Alternative Curriculum' at St John's.

These included:

- The introduction and resourcing of mentoring conversations for every student, with an adult professional, lasting about 15 minutes and scheduled, on average, once every five-to-six weeks
- Where mentoring was most effective, agreeing one or more Dimension to work on, the mentor taking notes of actions/targets agreed, dates for completion and review as well as time to talk in depth about what the Seven Dimensions of learning power 'actually mean'
- re-design of students' personal planners to include pages of explanation of the ELLI Dimensions, space for journaling and the student's own profile

- learning activities designed to promote particular dimensions of learning power, such as: ‘buddying opposites’; more team work for Learning Relationships;
- production of bookmarks with ‘tips and strategies’ for students for each Learning Power dimension and made available through mentoring
- production of a chart for teachers setting out graphically the relationships between the 5 Competencies and the 7 Dimensions
- the incorporation of ELLI Profiling data into the school’s value-added tracking system, alongside prior attainment, Teacher NC Assessment, Cognitive Ability Tests, Multiple Intelligence surveys, Pupil Attitude to Self and School and St John’s self-esteem surveys, narrative pen portraits from primary feeder schools and positive and negative referrals data
- arranging for the project leader to be fully trained as an ELLI Consultant and take on the responsibility of training and briefing the whole staff
- incorporating ELLI profiling and mentoring support into the School’s annual learning and guidance processes for Year 7 and opening it to other Year Groups
- an ELLI-trained tutor (reported by students in July Group 2) focussing on the 5 Competencies *and* the 7 Dimensions in Science teaching, said by the students to be helpful and relevant in ‘over a quarter’ of the subject.

4.4.2 **There was a recognition amongst the staff using ELLI (as ‘Champions’) that more needed to be done to promote the concepts and practices to the rest of the staff, to improve take-up of the ideas through pedagogy across the curriculum. This was regarded as a challenge, in the face of heavy curricular commitments in every subject, particularly at Key Stage 4.**

4.5 (RQ5) *What part can the dynamic assessment of learning power play in a radical shift of emphasis in curriculum design and delivery, in which:*

- i) the position of the student changes from that of a receptor to that of an active agent?***
- ii) an emphasis on knowledge, skills and understanding is counter-balanced by a primary focus on the process of learning itself?***

4.5.1 **Many of the students’ comments indicate a developing sense of their own agency as learners, a willingness to take decisions and responsibility for themselves and an tendency to reflect upon learning processes, sometimes (respectfully) critiquing teachers’ practices.**

These included:

- *I have clear targets and I can set myself ones now (see Appendix 2)*
- *Sometimes (the bookmarks are helpful) but I prefer to think up my own ways to help ourselves (sic) (Appendix 2)*
- *It’s just about you and no-one else just about your own learning (Appendix 2)*
- *Even if teachers don’t tell you to, you can still use it to help with your work (July Group 2)*
- *I plan my work more, rather than rushing into it (July Group1)*

- *I used to leave homework till the last minute, now I do a piece every day and plan ahead (July Group 1)*
- *Now I plan everything! (July Group 1)*
- *I'm always asking my (subject x) teacher if I can do it in a different way but she'll say "OK, but why don't you do this?" so you end up, what she wants, you do anyway. Our (subject x) teacher doesn't allow us to be creative! English is completely the opposite! (July Group 1)*

4.6 (RQ6) How do learning power profiles in these contexts compare with those for similar populations in more conventional curriculum contexts?

(Evidence in this section 4 is selected from the data analyst's report included in full as Appendix 5)

4.6.1 Whole year group means on Seven Dimensions, pre- and post-interventions

4.6.1.1 Characteristics of the cohort, pre-interventions

Statistics							
	pre chnglng	pre curiosity	pre meaningmaking	pre creativity	pre strategic	pre Ingrelation	pre resilience
N	199	199	199	199	199	199	199
Mean	64.4891	51.7774	59.3443	57.6214	54.1554	65.5081	55.7887
Std. Error of Mean	1.51972	1.20227	1.23201	1.19390	1.22934	1.01360	.97173
Std. Deviation	21.43829	16.96009	17.37968	16.84196	17.3419	14.29864	13.70800
Minimum	.00	11.11	19.05	10.00	5.13	25.00	15.69
Maximum	100.00	92.59	100.00	93.33	100.00	94.44	88.24

Fig.1: Year Group means on 7 Dimensions – pre-interventions

Initially, in November 2005, the 199 students' mean scores on the seven Dimensions ranged from 65.5% in Learning Relationships, the highest scoring Dimension, to 51.8% in Critical Curiosity, their lowest scoring Dimension.

4.6.1.2 Characteristics of the cohort, post-interventions

Statistics							
	post chnglng	post curiosity	post meaningmaking	post creativity	post strategic	post Ingrelation	post resilience
N	199	199	199	199	199	199	199
Mean	68.0905	53.9363	64.8002	60.6868	56.3329	66.4294	57.3456
Std. Error of Mean	1.48082	1.28418	1.37295	1.28005	1.30625	1.16877	1.08779
Std. Deviation	20.8896	18.1156	19.36788	18.05739	18.42688	16.48747	15.34521
Minimum	8.33	3.70	19.05	10.00	10.26	8.33	19.61
Maximum	100.00	100.00	100.00	96.67	100.00	97.22	98.04

Fig.2: Year Group means on 7 Dimensions – post-interventions

By the following June/July the matched students' mean scores on the seven Dimensions ranged from 68.1% in Changing & Learning, now the highest scoring Dimension, to 53.9% in Critical Curiosity which remained their lowest scoring Dimension.

4.6.2 Tutor Group means and significant variations, pre-interventions

When Scheffe Test analysis was applied to the pre-intervention data across all eight groups and all seven dimensions, variations between the eight tutor groups were not found to be statistically significant. However, looking more closely at the table below, showing mean scores of all eight groups in each of the seven dimensions, we can see a large difference between the means of one particular tutor group (No. 1243) and all the others in *two* dimensions: *Changing & Learning* and *Meaning Making* highlighted in yellow below. These two dimensions are amongst those found in the earlier ELLI Research to have the strongest relationship with achievement in National Curriculum core subjects.

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
post chnglng	1,239	28	63.6905	24.34473	4.60072	54.2506	73.1304	16.67	100.00
	1,240	21	65.0794	23.06679	5.03359	54.5795	75.5792	25.00	100.00
	1,241	26	69.2308	15.04977	2.95150	63.1520	75.3095	33.33	91.67
	1,242	24	62.5000	25.06031	5.11542	51.9180	73.0820	8.33	100.00
	1,243	26	79.1667	17.98919	3.52797	71.9007	86.4327	25.00	100.00
	1,244	22	71.2121	19.87515	4.23740	62.4000	80.0243	33.33	100.00
	1,246	26	68.5897	18.45531	3.61938	61.1355	76.0440	33.33	100.00
	1,247	26	65.0641	19.58163	3.84027	57.1549	72.9733	16.67	100.00
	Total	199	68.0905	20.88958	1.48082	65.1702	71.0107	8.33	100.00
post curiosity	1,239	28	51.3228	21.18557	4.00370	43.1078	59.5377	7.41	96.30
	1,240	21	56.7901	21.31910	4.65221	47.0858	66.4945	22.22	100.00
	1,241	26	60.2564	17.23103	3.37928	53.2966	67.2162	25.93	96.30
	1,242	24	52.4691	18.06751	3.68801	44.8399	60.0984	14.81	81.48
	1,243	26	58.9744	14.01246	2.74807	53.3146	64.6341	29.63	85.19
	1,244	22	55.2189	13.85370	2.95362	49.0765	61.3612	33.33	85.19
	1,246	26	43.3048	16.48940	3.23384	36.6446	49.9651	3.70	74.07
	1,247	26	53.9886	17.90611	3.51168	46.7562	61.2210	7.41	81.48
	Total	199	53.9363	18.11564	1.28418	51.4039	56.4688	3.70	100.00
post meaningmaking	1,239	28	60.0340	18.02079	3.40561	53.0463	67.0217	28.57	90.48
	1,240	21	64.3991	21.43487	4.67747	54.6421	74.1561	23.81	100.00
	1,241	26	71.2454	16.95563	3.32527	64.3969	78.0939	38.10	100.00
	1,242	24	61.5079	20.19898	4.12310	52.9787	70.0372	19.05	90.48
	1,243	26	74.1758	21.72485	4.26059	65.4010	82.9507	19.05	100.00
	1,244	22	67.0996	13.85668	2.95425	60.9559	73.2433	38.10	90.48
	1,246	26	58.9744	16.77256	3.28937	52.1998	65.7489	28.57	95.24
	1,247	26	61.3553	21.26720	4.17084	52.7653	69.9453	19.05	90.48
	Total	199	64.8002	19.36788	1.37295	62.0927	67.5077	19.05	100.00
post creativity	1,239	28	59.2857	20.08945	3.79655	51.4958	67.0756	16.67	86.67
	1,240	21	61.2698	18.72242	4.08557	52.7475	69.7922	23.33	93.33
	1,241	26	61.6667	13.03840	2.55704	56.4003	66.9330	33.33	90.00
	1,242	24	55.2778	16.82294	3.43397	48.1741	62.3815	23.33	80.00
	1,243	26	67.8205	18.99573	3.72537	60.1480	75.4931	10.00	90.00
	1,244	22	65.1515	15.55762	3.31690	58.2537	72.0494	40.00	93.33
	1,246	26	56.2821	18.53110	3.63425	48.7972	63.7669	26.67	96.67
	1,247	26	59.2308	20.09550	3.94105	51.1140	67.3475	10.00	86.67

	Total	199	60.6868	18.05739	1.28005	58.1625	63.2111	10.00	96.67
post strategic	1,239	28	53.1136	18.95635	3.58241	45.7630	60.4641	12.82	92.31
	1,240	21	56.5324	20.08326	4.38253	47.3906	65.6741	28.21	100.00
	1,241	26	58.4813	17.61625	3.45483	51.3659	65.5966	12.82	87.18
	1,242	24	52.5641	17.37414	3.54648	45.2276	59.9006	12.82	82.05
	1,243	26	65.7791	17.95520	3.52130	58.5268	73.0314	25.64	97.44
	1,244	22	62.3543	16.01059	3.41347	55.2556	69.4530	38.46	89.74
	1,246	26	48.6193	17.30693	3.39417	41.6289	55.6097	10.26	84.62
	1,247	26	54.1420	18.20804	3.57089	46.7876	61.4964	10.26	82.05
	Total	199	56.3329	18.42688	1.30625	53.7570	58.9089	10.26	100.00
post lngrelation	1,239	28	66.8651	15.51082	2.93127	60.8506	72.8795	38.89	91.67
	1,240	21	62.1693	15.37786	3.35572	55.1694	69.1692	30.56	86.11
	1,241	26	61.1111	20.54805	4.02980	52.8116	69.4106	8.33	91.67
	1,242	24	64.0046	14.29313	2.91757	57.9692	70.0401	38.89	83.33
	1,243	26	72.3291	16.39559	3.21544	65.7067	78.9514	30.56	94.44
	1,244	22	70.0758	15.16449	3.23308	63.3522	76.7993	25.00	94.44
	1,246	26	69.6581	13.30838	2.60999	64.2827	75.0335	41.67	97.22
	1,247	26	64.7436	18.50541	3.62921	57.2691	72.2181	11.11	97.22
	Total	199	66.4294	16.48747	1.16877	64.1245	68.7342	8.33	97.22
post resilience	1,239	28	57.2829	14.28327	2.69928	51.7444	62.8214	19.61	86.27
	1,240	21	59.1970	16.23571	3.54292	51.8066	66.5874	23.53	84.31
	1,241	26	59.0498	15.62072	3.06347	52.7404	65.3591	21.57	84.31
	1,242	24	56.1275	16.17744	3.30221	49.2963	62.9586	19.61	82.35
	1,243	26	60.9351	15.89975	3.11820	54.5131	67.3572	29.41	90.20
	1,244	22	53.7433	14.70631	3.13540	47.2229	60.2637	35.29	98.04
	1,246	26	51.4329	9.84787	1.93133	47.4552	55.4105	33.33	74.51
	1,247	26	60.7089	18.36434	3.60154	53.2914	68.1264	25.49	88.24
	Total	199	57.3456	15.34521	1.08779	55.2004	59.4907	19.61	98.04

*Fig.3: Tutor Group means on all 7 Dimensions – pre-interventions
(Tutor Groups identified by numbers, 1239-1247 in left hand column)*

It would appear that the Tutor Group 1243 students' reporting of their learning power in both *Changing & Learning* and *Meaning Making* at the outset of the project was significantly higher than that of students in the other seven groups. In *Changing & Learning*, their mean score was nearly 8 points higher than that of the second highest group; in *Meaning Making*, their mean was nearly 3 points higher than the (different) second placed group and over 7 points higher than the third placed group.

4.6.3 Pre-to-post differences reaching statistical significance in the whole cohort

The table in Figure 4 below shows the mean scores of the whole cohort in both the pre-intervention (Oct-Nov 2005) and post-intervention (Jun-July 2006) surveys. It can be seen clearly that the mean scores went up in all seven dimensions. This would appear to invite comparison with findings from earlier ELLI Research which showed a general decline in Learning Power as reported by students at Key Stage 3 compared with those at Key Stage 2 (which this cohort had only recently been when first surveyed).

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	post chnglng	68.0905	199	20.88958	1.48082
	pre chnglng	64.4891	199	21.43829	1.51972
Pair 2	post curiosity	53.9363	199	18.11564	1.28418
	pre curiosity	51.7774	199	16.96009	1.20227
Pair 3	post meaningmaking	64.8002	199	19.36788	1.37295
	pre meaningmaking	59.3443	199	17.37968	1.23201
Pair 4	post creativity	60.6868	199	18.05739	1.28005
	pre creativity	57.6214	199	16.84196	1.19390
Pair 5	post strategic	56.3329	199	18.42688	1.30625
	pre strategic	54.1554	199	17.34193	1.22934
Pair 6	post lngrelaton	66.4294	199	16.48747	1.16877
	pre lngrelaton	65.5081	199	14.29864	1.01360
Pair 7	post resilience	57.3456	199	15.34521	1.08779
	pre resilience	55.7887	199	13.70800	.97173

Fig.4: Whole cohort means on all 7 Dimensions, pre- and post-interventions

These differences can be seen graphically in the following histograms, showing the distribution of scores across the cohort, for all seven dimensions in both tests, the pre-intervention (Autumn 2005) charts on the left and post-intervention (Summer 2006) charts on the right:

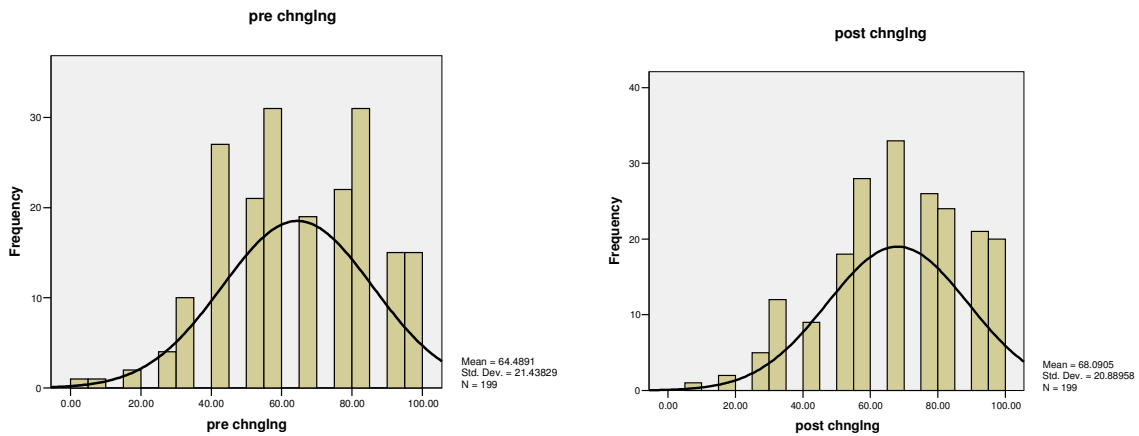


Fig. 5: Distribution and means, pre- and post-interventions, for Changing & Learning (up by 3.6014)

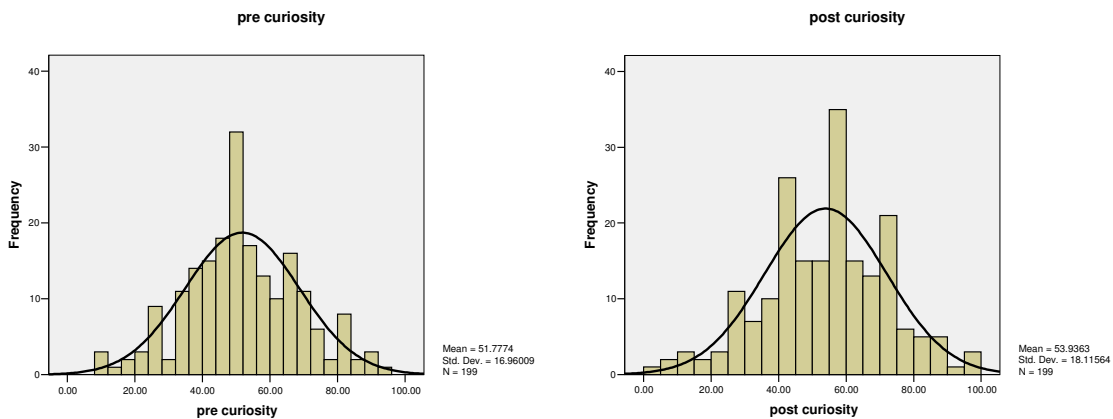


Fig. 6: Distribution and means, pre- and post-interventions, for Critical Curiosity (up by 2.1589)

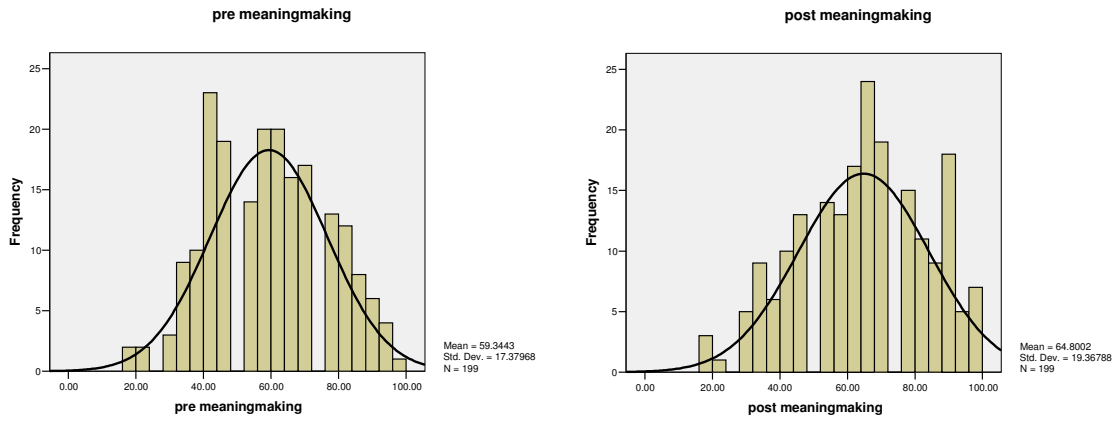


Fig. 7: Distribution and means, pre- and post-interventions, for Meaning Making (up by 5.4559)

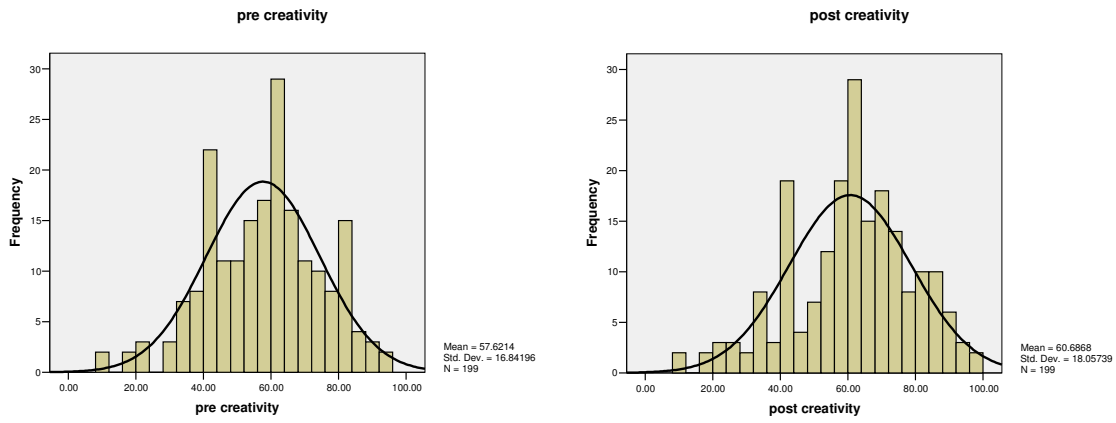


Fig. 8: Distribution and means, pre- and post-interventions, for Creativity (up by 3.0654)

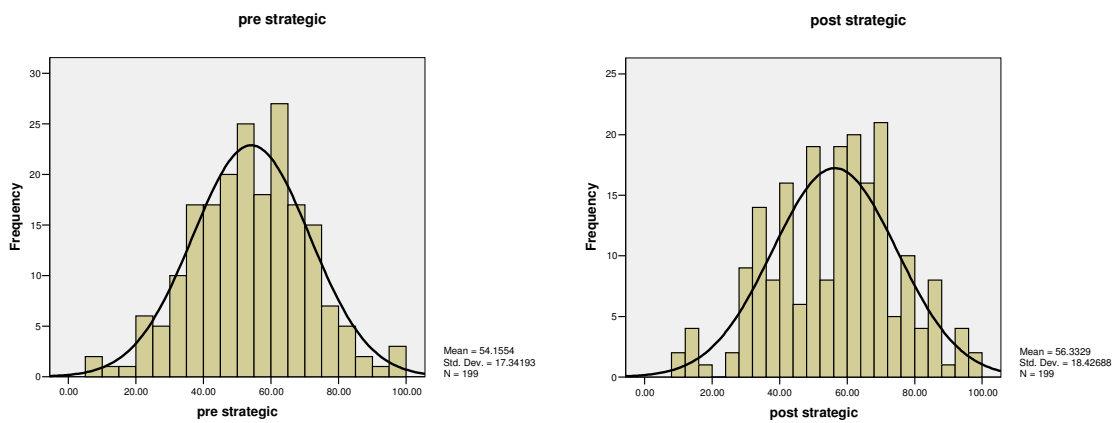


Fig. 9: Distribution and means, pre- and post-interventions, for Strategic Awareness (up by 2.1775)

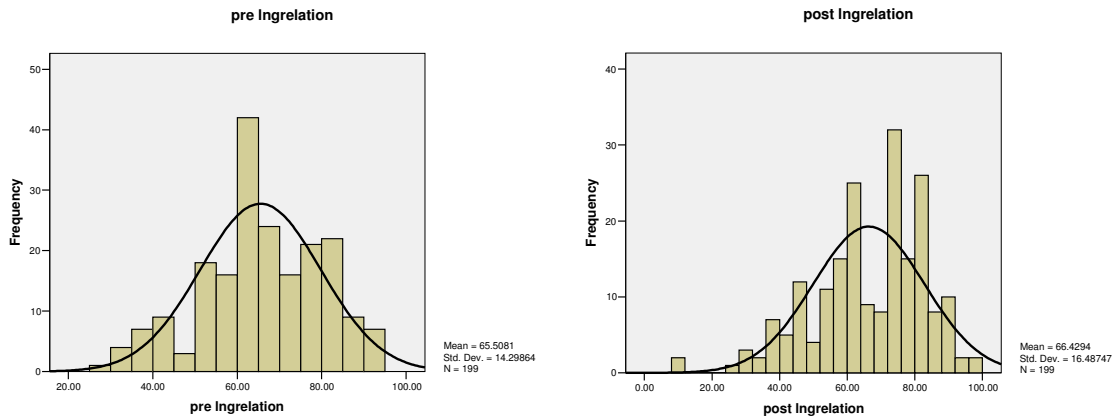


Fig. 10: Distribution and means, pre- and post-interventions, for Learning Relationships (up by 0.9213)

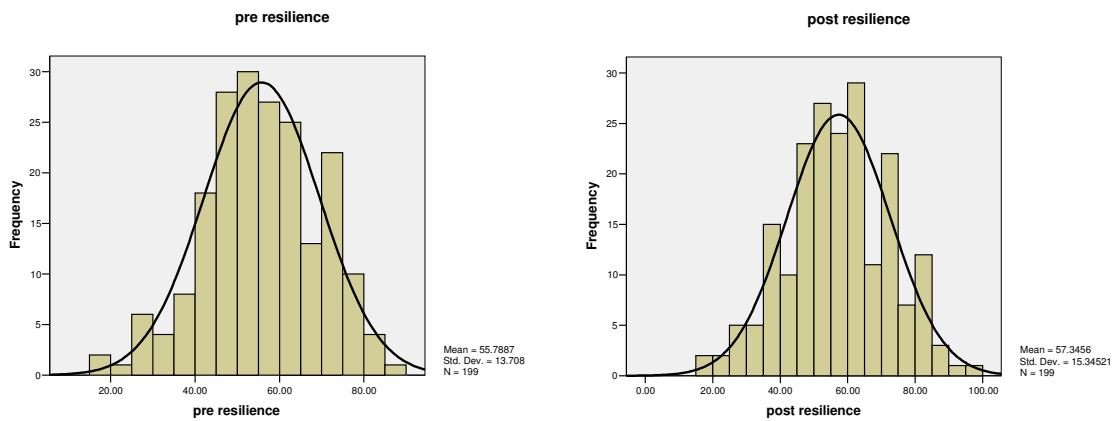


Fig. 11: Distribution and means, pre- and post-interventions, for Resilience (up by 1.5569)

When these data were tested for statistical significance, it was found that the gains between the pre- and post-intervention scores were statistically significant in three out of the seven dimensions: *Changing and Learning*, *Meaning Making* and *Creativity* (see Figure 12, below).

Paired Samples Test

		Paired Differences								
					95% Confidence Interval of the Difference				Sig.	
		Mean	Std. Deviation	Std. Error	Lower	Upper	t	df	(2-tailed)	
Pair 1	post chnglng - pre chnglng	3.60134	21.94296	1.55550	.53388	6.66880	2.315	198	.022	
Pair 2	post curiosity - pre curiosity	2.15894	17.83703	1.26443	-.33454	4.65243	1.707	198	.089	
Pair 3	post meaningmaking - pre meaningmaking	5.45585	18.67350	1.32373	2.84543	8.06627	4.122	198	.000	
Pair 4	post creativity - pre creativity	3.06533	17.63630	1.25020	.59990	5.53075	2.452	198	.015	
Pair 5	post strategic - pre strategic	2.17755	16.83908	1.19369	-.17643	4.53153	1.824	198	.070	
Pair 6	post lngrelaton - pre lngrelaton	.92127	16.72981	1.18594	-1.41743	3.25998	.777	198	.438	
Pair 7	post resilience - pre resilience	1.55680	13.88062	.98397	-.38360	3.49721	1.582	198	.115	

Fig.12: Pre- and post-intervention differences on all 7 Dimensions (statistical significance at or below 0.05)

These data suggest that the St John's Year 7 students reversed the tendency for decline in Learning Power at this age and stage suggested by the earlier ELLI Research and made gains which reached statistically significant levels in their reported levels of *Changing and Learning*, *Meaning Making* and *Creativity*. The positive change was greatest, and most significant, in *Meaning Making*.

4.6.4 Significant or near significant variations between genders in pre- and post-intervention differences.

4.6.4.1 Boys

As with the whole sample, the boys improved their scores in all seven dimensions, (shown in this table in Figure 13 below):

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	post chnglng	66.9326	94	21.14735	2.18118
	pre chnglng	62.3227	94	22.68982	2.34028
Pair 2	post curiosity	52.9157	94	18.67810	1.92650
	pre curiosity	51.1820	94	18.26560	1.88395
Pair 3	post meaningmaking	63.5258	94	18.79704	1.93877
	pre meaningmaking	57.6494	94	17.29618	1.78396
Pair 4	post creativity	60.3191	94	17.63881	1.81930
	pre creativity	56.2057	94	17.28668	1.78299
Pair 5	post strategic	55.3737	94	19.10054	1.97007
	pre strategic	53.6825	94	18.58842	1.91725
Pair 6	post Ingrelation	66.1348	94	16.36159	1.68757
	pre Ingrelation	62.6773	94	15.05862	1.55318
Pair 7	post resilience	56.8002	94	15.33027	1.58120
	pre resilience	54.7768	94	13.80151	1.42352

Fig.13: Pre- and post-intervention mean scores on all 7 Dimensions: boys only

When these data were tested for statistical significance, in just two dimensions their gains were found to reach statistically significant degrees: those of *Meaning Making* and *Creativity*.

Paired Samples Test									
		Paired Differences			95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	post chnglng - pre chnglng	4.60993	25.44752	2.62471	-.60223	9.82209	1.756	93	.082
Pair 2	post curiosity - pre curiosity	1.73365	18.78896	1.93793	-2.11470	5.58200	.895	93	.373
Pair 3	post meaningmaking - pre meaningmaking	5.87639	20.56697	2.12132	1.66387	10.08892	2.770	93	.007
Pair 4	post creativity - pre creativity	4.11348	18.52007	1.91020	.32020	7.90675	2.153	93	.034
Pair 5	post strategic - pre strategic	1.69122	17.66707	1.82222	-1.92735	5.30978	.928	93	.356
Pair 6	post Ingrelation - pre Ingrelation	3.45745	17.67033	1.82256	-.16179	7.07668	1.897	93	.061
Pair 7	post resilience - pre resilience	2.02336	15.74008	1.62347	-1.20052	5.24724	1.246	93	.216

Fig.14: Pre- and post-intervention differences on all 7 Dimensions: boys only (statistical significance at or below 0.05)

4.6.4.2 Girls

In the pre-intervention surveys, the girls had reported themselves to be significantly higher in *Learning Relationships* (with a mean score of 68.0423) than the boys (62.6773). It was the only statistically significant variation between the genders, in either pre- or post-intervention scores. Interestingly, this (LR) was the only dimension in which a drop was reported, pre-to-post-intervention, by the girls alone (down to 66.6931 – as seen in the table in Figure 15, below), though this was not enough to reach statistical significance, nor to prevent the overall rise across the Year Group, reported above.

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	post chnglng	69.1270	105	20.70227	2.02034
	pre chnglng	66.4286	105	20.16416	1.96782
Pair 2	post curiosity	54.8501	105	17.63636	1.72113
	pre curiosity	52.3104	105	15.76958	1.53895
Pair 3	post meaningmaking	65.9410	105	19.88521	1.94060
	pre meaningmaking	60.8617	105	17.39614	1.69769
Pair 4	post creativity	61.0159	105	18.50227	1.80564
	pre creativity	58.8889	105	16.41259	1.60171
Pair 5	post strategic	57.1917	105	17.85026	1.74201
	pre strategic	54.5788	105	16.22349	1.58325
Pair 6	post lngrelaton	66.6931	105	16.67332	1.62715
	pre lngrelaton	68.0423	105	13.14303	1.28263
Pair 7	post resilience	57.8338	105	15.41557	1.50441
	pre resilience	56.6947	105	13.62578	1.32974

Fig.15: Pre- and post-intervention mean scores on all 7 Dimensions: girls only

When the data were tested, the only dimension in which the girls' changes were found to reach a statistically significant degree was that of Meaning Making (shown in Figure 16):

Paired Samples Test									
		Paired Differences			95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	post chnglng - pre chnglng	2.69841	18.32660	1.78849	-.84824	6.24506	1.509	104	.134
Pair 2	post curiosity - pre curiosity	2.53968	17.02150	1.66113	-.75440	5.83376	1.529	104	.129
Pair 3	post meaningmaking - pre meaningmaking	5.07937	16.89104	1.64840	1.81053	8.34820	3.081	104	.003
Pair 4	post creativity - pre creativity	2.12698	16.83964	1.64338	-1.13190	5.38587	1.294	104	.198
Pair 5	post strategic - pre strategic	2.61294	16.13466	1.57458	-.50951	5.73540	1.659	104	.100
Pair 6	post lngrelaton - pre lngrelaton	-1.34921	15.57650	1.52011	-4.36364	1.66523	-.888	104	.377
Pair 7	post resilience - pre resilience	1.13912	12.03738	1.17473	-1.19041	3.46865	.970	104	.334

Fig.16: Pre- and post-intervention differences on all 7 Dimensions: girls only (statistical significance at or below 0.05)

Meaning Making is therefore the only dimension in which the pre-to-post intervention gains reached statistical significance for both the genders separately and the cohort as a whole. This reflects findings in the wider ELLI data set.

4.6.5 Significant variations between tutor groups in pre- and post-intervention differences.

The eight tutor groups are numbered to preserve anonymity. A key can be found in Appendix 5 page 36, followed by pre- and post-intervention mean score tables and paired sample tests showing which pre-to-post differences reached statistically significant degrees in each tutor group. The table in figure 17 below sets out what these data reveal about where significant change occurred in the learning power of the eight tutor groups between pre- and post-intervention surveys:

Tutor Group	Statistically significant gains reported in the following dimensions:
1239:	Resilience
1240:	Meaning Making (MM)
1241:	None (from a higher pre-intervention baseline)
1242:	Ch & Learning; Curiosity; Meaning Making
1243:	Ch & Learning; Creativity; MM; Strategic Aw.
1244:	Meaning Making
1246:	Ch & Learning (enough to explain whole cohort change)
1247:	None

Fig.17: Tutor group variations in Dimensions where significant change was reported

Data is not available to form any hypotheses explaining these variations but the school may know of differences in the particular strategies and approaches adopted by the eight tutors. Several empirical studies in education, including earlier ELLI research, have found that the commitment, judgement and self-efficacy of the teacher has a significant impact upon students' motivation, achievement, learning power and learning outcomes.

5. Conclusions

St John's offered a very special context for this enquiry. The competencies-based 'Opening Minds' curriculum pioneered at Key Stage 3, the School's intentional positioning of itself at the leading-edge of the 'personalised learning' agenda and its particular interest in 'independent learning pathways' were all indicative of an affinity with the principles and applications of the ELLI programme and a collective (even if not unanimous) confidence in significant educational change and its management. One of the most important conclusions from this study must be about the difference made by clear, principled and practical leadership in the school. Other enquiries have illuminated issues of change and shown how the effectiveness and impact of this kind of intervention reflects the degree of strategic support, resourcing and priority it is given by the school's leadership. This ELLI project was understood, promoted, driven, supported and followed through by the school's leadership and the staff most actively involved. However difficult it may be to attribute

effects to particular causes in action enquiries where so many factors and variables are at work, we can be sure that this quality of leadership played a key part in the success of this project and its outcomes.

One of the first questions in everyone's minds at the outset was whether this unique setting and unusual degree of curriculum adaptation to support learner autonomy would be reflected in significantly different self-reporting on the Seven Dimensions of learning power. The short answer is, 'Yes!' The Year 7 cohort of nearly 200 students made significant gains in three out of the seven dimensions. With the same caveat about attribution of effects to causes, the data shows the learning power scores of this cohort increased significantly during their first year in secondary school, when earlier research has indicated a general decline in those scores between Key Stage 2 and key Stage 3. It seems that St. John's has 'bucked the trend'!

Within that picture, there are variations. While two tutor groups made no significant gains (one of these having much the highest baseline of any group), half of the groups made significant gains in one dimension and two groups made significant gains in three or more Dimensions. Given that the groups were formed using 'balancing' criteria for approximate homogeneity, this variability is likely to reflect differences between the tutors and, if so, echoes a common finding in education research, including earlier ELLI research: that, teachers have amongst the most significant influences on outcomes. In other words, unsurprisingly, the strategies, skills, commitment and self-efficacy of the teacher are seen to be critical factors in the development of the students' learning power.

It is also in common with other enquiries in the ELLI programme so far, that some of the most striking and eloquent evidence is heard in the voices of the learners themselves. Reading the verbatim comments in the 'Findings and Evidence' section above, for instance, makes it clear that there was very wide acceptance of the validity and usefulness of the ELLI profiles and that these were widely used as a basis for strategic decision-making. Comments like:

It was really clever how the questions sorted me out!

and

I liked the shape (profile)! I could really work on the shape!

suggest not only that these learners could 'see' themselves and their potential for self-improvement in their profiles, but that they had been introduced to and guided in responding to the questionnaire in a way that optimised their willingness to use its outputs to their own advantage.

One of the most striking and welcome responses in the focus group meetings was their observations that working with ELLI had helped them to see links across domains and 'connect lessons together': learning at school and at home; learning in different subjects; skills and strategies used in different situations. This particular finding is well-supported by the School's profile data on Meaning Making, in which the mean score for the whole cohort rose by five-and-a-half percent in the year, easily the highest of the seven dimensions. It is likely to be an outcome of one of the key aims of the School's Year 7 curriculum: to create links between curriculum areas, break down subject boundaries and improve cohesion of curriculum content. It clearly reflects the emphasis given to mind-mapping as a learning tool, often suggested as the initial task for new units of work in the

competencies curriculum at St John's. It also underlines the research definition of learning power as a 'form of consciousness ...with a temporal and lateral connectivity'.

In terms of their 'consciousness', these Year 7 students share with those in the other studies the distinction of appearing, in their use of the 'ELLI language', to have grown in their reflective self-awareness, being able to articulate reflections on their own and each other's behaviour, in terms of the dimensions, with a maturity that would commonly be associated with much older students:

It's not that people have changed; it's their way of learning...

sometimes attributing such insights directly to their work with ELLI, which, one said:

...makes you see what's going on.

Nowhere was this level of reflection on process more profound than in the small group of Year 11 students when evaluating their 'personalised enquiry' projects, including such comments as:

I have discovered how to learn as an individual, rather than as the rest of the students in the room are being taught.

A sharp critique of the more conventional classroom experience – to which things would appear largely to revert at Key Stage 4 in the face of examination pressures – is evident in remarks such as these, provoked perhaps by new awareness of possibilities 'opened up' by their personalised learning projects and the difference between this approach and what they had come to accept as the norm:

In a classroom, every student is taught as if they were the same person; outside of it you can choose which ways your mind will best process the task.

We're all programmed in a way that makes our experience invisible.

There is a tension being exposed, made explicit and delicately managed at St John's, between the aspirations and ideals of the learner-centred approach and the harsh realities of curriculum content, testing and examinations driven by the accountability agenda. The Key Stage 3 experiment, for all its evident success, may not yet have shifted the balance significantly at Key Stage 4. These Year 11 students have spotted the anomaly. Their earlier experience of the 'Opening Minds' curriculum, combined with the research-led focus on process in their enquiry projects, together gave them a higher perspective from which they could view these very tensions and difficulties. Their observations from this perspective in conversation suggest that they saw in the more personalised approach a 'better' way, since it helped them to grow in awareness of both themselves *and* their learning and resolve the dichotomy for themselves:

It's (about) understanding – because you can pass exams without understanding

It's self growth and achievement....

Our personal experience is important....the way we learn almost exclusively cuts out important things, which are non measurable things....

If we could learn to tell our stories...

Learning to tell your own story would make it easier to do all the other things you have to do – learn subjects, get grades etc... Jon and Demelza, Year 11

It is as if they sense the possibility of a different paradigm for formal education.

Returning to the Year 7 cohort, which was the main focus of this R&D project, one of most encouraging findings was the wealth of innovative and creative practice that went to make up the interventions between the two ELLI surveys. In a school already well known for curriculum re-design and innovatory delivery at Key Stage 3, it is perhaps unsurprising, but no less exciting to see a number of new ideas and adaptations to practice in learning and teaching inspired by the ideas and opportunities of working with the ELLI Dimensions. These amounted to a whole ‘infrastructure’ of support: the laminated bookmarks with ELLI ‘tips’ on them on each Dimension; the explanatory and journaling pages in personal planners; ‘buddying’ arrangements for peer-coaching in different dimensions; adaptations to student tracking systems; mapping with other personal and survey data; mentoring conversations every five-to-six weeks.

The most important single one of these interventions – the most costly in terms of resource and representing significant commitment on behalf of the School – was the mentoring system. The findings strongly support the validity of this investment. The school’s own survey found that no less than 88% of the students had discussed their ELLI profiles in mentoring and found it helpful. The voices of the students are also clear:

It (talking about my ELLI profile) makes me want to improve!

The mentoring sessions were a starting point...

The survey concluded that mentoring was most effective when the mentor made notes of agreed actions *and* time was taken to talk in depth about what the Seven Dimensions of learning power actually mean.

This represented a strategic commitment by the School to one of the principles at the heart of the growing body of empirical evidence about learning power: that it is best nurtured and developed in the context of a mentoring-style learning relationship, characterised by trust, affirmation and challenge. The learner is known and listened to, encouraged to take responsibility and supported in ‘taking on’ the concepts, goal-setting and self-efficacy made possible by an accessible representation of her own learning potential. It is in the ‘alchemy’ of this kind of conversation that self-diagnosis is converted into strategy.

It was perhaps an inevitable by-product of all this ‘ELLI-related’ activity and innovation that the issue arose of the need to avoid any sense of division between staff, with some closely involved and others feeling ‘left-out’ of the picture. Another tension that needs managing, by any school contemplating using a tool like ELLI as an agent for change, is that between the desire, on one hand, to be inclusive and coherent in policy implementation and the recognition, on the other hand, that you cannot ‘fight on all fronts at the same time’ and many staff are simply too busy, or feel too accountable and committed to currently ‘effective’ practice to have much time or space to try seeing and doing things differently. What is not always fully appreciated is how perceptive students can be about differences between staff, as illustrated by the comparison made by one Year 7 student between the levels of autonomy she was given by two of her teachers:

I'm always asking my (subject x) teacher if I can do it in a different way but she'll say "OK, but why don't you do this?" so you end up, what she wants, you do anyway. Our (subject x) teacher doesn't allow us to be creative! English is completely the opposite! (July Group 1)

The remark shows nicely how an ELLI project can 'lift the lid' on perceptions and illuminate issues, partly by 'turning the volume up' a little on the student voice. A school needs to be ready to handle what could, in some cultures and by some people, be found threatening and unacceptably subversive. That in turn raises the 'chicken-and-egg' question about whether a school's values need to be developed and clarified before it can expect something like ELLI to make much difference. The 'Opening Minds' development had gone a long way towards doing this at St John's, though attitudes towards it still varied. It will always be a challenge in a large secondary school to get everyone 'on board' with generic change and develop the kind of cohesion and clarity of purpose that the ELLI framework has helped to achieve more quickly, for example, in some primary school settings.

The Research Question that best embodied the values of the School and its story of curriculum and cultural development was No. 5: trying to explore empirically the theoretical and philosophical relationships between the St John's approach to learning and the research and practice associated with the ELLI Programme. They both have twin aims:

- to develop a sense of agency and self-efficacy in learners and
- to raise awareness of and reflection upon the processes, rather than just the content and outcomes of learning.

As well as illuminating the issues and tensions involved in such an enterprise, the evidence is clear that the experience of learning for a year at St John's, including the ELLI project, furthered these aims for both the year 7 and Year 11 students. When students talk freely about how they have changed, from 'always leaving homework till the last minute' to 'doing a piece every day and planning ahead' and to 'planning work more now' rather than 'rushing into it', when they say they 'set their own targets now' and use their ELLI profiles to help them 'even if the teacher doesn't tell you to', it is abundantly clear that they have started to take responsibility for themselves and develop in their strategic awareness. They appear to have connected the personal with the technical aspects of learning. They know what it means to feel trusted and to develop trust in their own capacity to learn. They have a language with which to represent their sense of their own agency and distinguish it from the institutional pressures and systems that are there to 'make sure' they perform:

*when I was a child...I was always much keener to do something if I knew I would get a reward at the end of it.....the performance was important and not the process...and that's the way the education system works...it's very results driven... It's a bit of a trust thing....they don't trust you to do it in your own way....its a trust thing...
It all ties together – its about self awareness more than anything elseself awareness is not even touched upon in the education system...*

Demelza and Jon (Year 11)

It is rare to find such eloquent young ambassadors for a new paradigm: 'learning agents' who promote change and represent the potential positive energy of a young generation engaged by personalised learning in a school with a vision for it.